WORKPLACE SAFETY AND HEALTH IN CALIFORNIA

From The
National Institute for Occupational Safety and Health

State Profile 2002

Delivering on the Nation's promise:
Safety and health at work for all people through prevention.

The National Institute for Occupational Safety and Health

NIOSH is the primary federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH is located in the Department of Health and Human Services in the Centers for Disease Control and Prevention. The NIOSH mission is to provide national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services. As part of its mission, NIOSH supports programs in every state to improve the health and safety of workers. NIOSH has developed this document to highlight recent NIOSH programs important to workers and employers in California.

The Burden of Occupational Illness and Injury in California

- In California, there are approximately 16.2 million individuals employed in the workforce.[1]
- In 2000, 553 workers died as a result of workplace injuries.[2]
- The services industry had the highest number of fatalities, followed by the construction industry and the transportation and public utilities industry.[2]
- In 1999, the most recent year for which data are available, the rate of fatal workplace injuries was 3.6 deaths per 100,000 workers–below the national average rate of 4.5 deaths per 100,000 workers.[2]
- In 2000, there were 787,400 nonfatal workplace injuries and illnesses in California.[3]

The Cost of Occupational Injury and Illness in California

In 2000, the most recent year for which data are available, a total of $8.9 billion was paid for workers' compensation claims by California private insurers, self-insured employers, and state funds.[4] This figure does not include compensation paid to workers employed by the federal government and also underestimates the total financial burden for private sector businesses, since only a fraction of health care costs and earnings lost through work injuries and illnesses is covered by workers' compensation. Chronic occupational illnesses like cancer are substantially under-reported in workers' compensation systems because work-relatedness is often difficult to establish.

How NIOSH Prevents Worker Injuries and Diseases in California

Health Hazard Evaluations (HHEs) and Technical Assistance

NIOSH evaluates workplace hazards and recommends solutions when requested by employers, workers, or state or federal agencies. Since 1993, NIOSH has responded to 192 requests for HHEs in California in a variety of industrial settings, including the following example:

San Francisco, California: Retrospective Evaluation of Airport Terminal
In 2000, NIOSH received a request for an HHE at an airport's terminal under construction in San Francisco, California. According to the requestor, several trades had been routinely exposed to dusts containing fireproofing material and epoxy resin, resulting in respiratory complaints such as sinus and ear infections and breathing difficulties, as well as other symptoms such as bloody noses, headaches, and skin rashes. The primary exposure was to dust generated when removing fireproofing and during the cleanup of accumulated fireproofing materials by dry sweeping. Because the dust-generating activities occurred during 1998 and 1999, NIOSH conducted a retrospective analysis. Given the uncertainty regarding the potential health effects caused by inhalation and dermal exposure to fireproofing dusts and in the absence of valid industry- or manufacturer-supplied exposure limits, NIOSH recommended that exposures be highly controlled through work practices, worker and employer training, and feasible engineering controls such as wet removal and cleanup, use of dust suppression cleanup materials, and vacuum removal. If exposures to fireproofing dusts are not controlled, the employer should require and provide respiratory and other personal protection.

Fatality Assessment and Control Evaluation (FACE) Investigations

NIOSH developed the FACE program to identify work situations with a high risk of fatality and to formulate and disseminate prevention strategies. In California, FACE is conducted by the California Department of Health Services, under a cooperative agreement with NIOSH. Since 1995, 80 FACE investigations have been conducted in California, including the following example:

California: Traffic Controller Killed by Dump Truck
On March 19, 2001, a 53-year-old female traffic controller died while raking asphalt directly behind a dump truck, when the truck backed over her. The victim's duties did not include raking the asphalt. The FACE investigator recommended using a spotter when backing heavy equipment; ensuring that employees stay in clear view of those who operate equipment; and using additional safety devices for heavy equipment.

Fire Fighter Fatality Investigation and Prevention Program

The purpose of the NIOSH Fire Fighter Fatality Investigation and Prevention Program is to determine factors that cause or contribute to fire fighter deaths suffered in the line of duty. NIOSH uses data from these investigations to generate fatality investigation reports and a database of case results that guides the development of prevention and intervention activities. Since 1997, there have been nine fire fighter fatality investigations in California.

Building State Capacity

State-Based Surveillance
NIOSH funds the Adult Blood Lead Epidemiology and Surveillance Program (ABLES) in the California Department of Health Services. Through ABLES, the agency's staff track and respond to cases of excessive lead exposure in adults which can cause a variety of adverse health outcomes such as kidney or nervous system damage and potential infertility. In addition, NIOSH funds the Sentinel Event Notification System for Occupational Risk (SENSOR), through which the agency's staff track and develop interventions for acute pesticide-related illness and asthma.

University of California Agricultural Health and Safety Center at Davis
California is the largest agricultural state in the nation, with many agricultural practices and a very diverse workforce population. The Center at Davis, one of ten NIOSH Centers for Agricultural Disease and Injury Research, Education, and Prevention nationwide, is uniquely situated to address these issues utilizing the diverse expertise of its faculty. Currently, projects at this Center aim to increase bilingual/bicultural health and safety efforts among migrant and seasonal farmworkers, address respiratory disease from exposures in California and other dry farming environments, and develop better ergonomic solutions to reduce trauma injuries in agriculture.

Northern and Southern California Education and Research Centers (ERCs)
These ERCs, two of the 16 NIOSH ERCs nationwide, are based at the University of California. The Northern ERC, headquartered in Berkeley, and the Southern ERC, headquartered in Los Angeles, provide academic and research training programs in industrial hygiene, occupational medicine, occupational health nursing, and ergonomics. The ERCs also provide programs in continuing education and outreach; short-term hazardous substance training; and agricultural health and safety. In fiscal year 2001, 83 students were enrolled and 33 were graduated. One-hundred-nineteen continuing education courses were provided to 4,873 professionals.

San Diego State University
This program, located in the Graduate School of Public Health, provides graduate level training in industrial hygiene. In fiscal year 2001, 21 students were enrolled and eight were graduated.

Extramural Programs Funded by NIOSH

The following are examples of recent contracts, grants, or cooperative agreements funded by NIOSH in the state of California.

Ergonomic Assessment of Vineyards
Researchers at the University of California are studying the risks for musculoskeletal disorders in workers of winegrape vineyards. The project will estimate the effects of trellis systems (the workstations of vineyard workers) on musculoskeletal symptoms. Results will be shared with winegrape and other agricultural groups.

Endocrine Disruptors and Neurodevelopmental Outcome

Researchers at the University of California, Berkeley, will study whether *in utero* exposure to endocrine disrupting pesticides is associated with adverse effects on the neurobehavioral development of children and will identify population correlates of exposure, (e.g., occupation, season) so that appropriate interventions to reduce exposure can be developed. Approximately 550 children will be examined from predominantly low-income Latino farmworker families living in the Salinas Valley of Monterey County, California.

Additional information regarding NIOSH services and activities can be accessed through the NIOSH home page at http://www.cdc.gov/niosh/homepage.html or by calling the NIOSH 800-number at 1-800-356-NIOSH (1-800-356-4674).

---

[1]U.S. Department of Labor (DOL), Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics, Current Population Survey, 2000.

[2]DOL, BLS in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999-2000.

[3]DOL, BLS in cooperation with participating state agencies, Survey of Occupational Injuries and Illnesses, 2000.

[4]National Academy of Social Insurance, *Workers' Compensation: Benefits, Coverage, and Costs, 2000 New Estimates,* May 2002.

NIOSH